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EXAMINER	
HOFFMANN, JOHN M	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/031,109	SARKAR, ARNAB	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,23 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 has been amended so that the "controllably operate" occurs "only" after the predetermined size has been met. As indicated in the prior art rejection below, Examiner does not know what is meant by this change. It could be interpreted as meaning that there is no control whatsoever of the extra burner prior to proper size (which seems unreasonably narrow). It could also mean there needs to be a controlled operation that occurs only after the proper size is reached (which doesn't seem to be a particularly reasonable either because it would keep the claim open to other controlled operations before the proper size). Or perhaps there is still some other interpretation. Since Examiner cannot tell (from the claim or anything else in the record) what is meant by this change to the claim, it is deemed that one of ordinary skill would also not be able to discern what is being claimed.

Furthermore, as indicated below, Examiner is not certain as to whether the invention of claim 2 is obvious or not – because it is unclear what is meant by the new limitation. Therefore the claims are indefinite.

This is deemed to be a prima facie showing that the claims are indefinite.

See Allen Eng'g Corp. V. Bartell Indus. Inc. 299 F 3d 1336, 1348, 63 USPQ2d 1769, 1775 (Fed. Cir. 2002) (quoting Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)) ("In determining whether the claim is sufficiently definite, we must analyze whether "one skilled in the art would understand the bounds of the claim when read in light of the specification.'") See also, Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375, 60 USPQ2d 1272, 1276 (Fed. Cir. 2001) (citation omitted) (patent claims must be "sufficiently precise to permit a potential competitor to determine whether or not he is infringing").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkey 4486212 in view of Spainhour 4317667.

Berkey discloses the invention as claimed – except for the housing/chamber. As per col. 1, lines 13-48 of Spainhour it is known to make fiber preforms in a chamber so as to prevent escape of contaminants. It would have been obvious to perform the Berkey process in a chamber so as to prevent the escape of contaminants.

Figure 1 of Berkey shows the mandrel 20 – it is inherent that it is supported. Figure 11 shows the main deposition burner with a central axis

(substantially at 76') and orifices 80' (i.e the claimed divergent reactant ports) which would have been on either side of the preform to quasi-tangentially impinge on the preform. The claim phrases "to reduce turbulence..." and " such that the two streams..." reasonably signify intentions. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Impinging and turbulence related limitations are method limitations not structural.

There is a ring of orifices 80' – the claim is open to other ports/orifices that do not quasi-tangentially strike the mandrel/preform.

Claims 2-3: first note how the art was applied in the previous rejection:

Claim 2: see col. 4, lines 38-45. It would have been obvious to have all the features automatically controlled as well as having a controller which does the controlling, because such would be more accurate than doing so manually. It would have been obvious to have the controller do the controlling at all times – including whenever the size is at any predetermined size.

Claim 3: see figure 3 of Spainhour. One could use those structures to form flames – it is only a matter of intended use. Alternatively, Berkey refers to "one or more" auxiliary burners. It is clear that Berkey is directed to having more than two – otherwise it would say "one or two". It would have been obvious to have at least two on each side and it would have been further obvious to have them on opposite sites so as to have the heat evenly balanced.

However, claim 2 has been amended so that the "controllably operate" occurs "only" after the glass preform reaches a predetermined size. Examiner is not certain as to the scope of this change – nor has applicant pointed out how this change would

define over the prior art (as required as per **37 CFR § 1.111 - c**) if such is considered to be a patentable novelty.

It is deemed that the broadest reasonable interpretation would essentially be that there is a controlled operation that occurs only after the preform has reached a certain size. This would have been obvious in that it would have been obvious to have the controller automatically shut off the auxiliary burners when the preform is complete (i.e. a certain size) . It would have been obvious to run the process so that the process would repeatedly make preforms of identical size (i.e. a "predetermined size"). Of course the shut-off of the extra burners would not occur before that predetermine size, because the preform would not be finished yet.

Examiner believes another possible reasonable interpretation exists: that there is no controlling whatsoever prior to the predetermine size being obtained. However, that also seems to be somewhat unreasonable, in that one of ordinary skill could easily avoid infringement by having some movement control prior to the "predetermined size" being obtained. It would seem likely that if Applicant clearly stipulates that this very narrow interpretation is the only proper interpretation, then the claim might be allowable.

Claim 4: it would have been obvious to make the burner adjustable, so that one can choose the optimal placement.

Claim 5: It is deemed that 84' are the flame ports. The "for forming the flame..." is an intended use limitation which does not define over the Berkey- Spainhour combination.

Claim 6: 82' are the shield gas ports.

Claim 7: it would have been obvious to have as many or as few rings of ports around the burner with no new or unexpected results – depending upon the particular flame characteristics that one desires.

As to claims 8-9: it is deemed that the directing is a method of use limitation. For example, with any burner, one can direct a flame in any desired manner by using other blowers/jets to do the directing. Note, this is not a statement that it would be obvious to do so, rather that such is possible. This possibility is all that is required – when one interprets the claims in light of the specification. Most notably in light of figure 7 which shows that the burner can also create a flame 30 that is not directed inwardly. In other words, the inwardly directing of the flame is NOT an inherent property that always results when one uses the invention. Rather (at most) one can have an inward direction – under certain circumstances. And under other circumstances (such as Applicant shows in figure 7) the flame is directed outwardly.

Claim 10: it would have been obvious to have valves connected to all feeding passageways, so that one can turn of the burner when one is finished – and to adjust the feed rates so as to get the optimal rates.

Claims 11-12: Such mixtures burn easily. Any conduit is inherently configured to burn such mixtures.

Claims 23. As indicated above, it is unclear what is meant by the means-plus-function language. It is deemed that the conduits that are used in Berkey are such means because they are means for transporting fluids.

Claims 13-14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keim 5160520, Ohga 5674305, or Jung 4576622 in view of Spainhour 4317667.

Keim, Ohga, and Jung each disclose the invention as claimed – except for the chamber. As per col. 1, lines 13-48 of Spainhour it is known to make fiber preforms in a chamber so as to prevent escape of contaminants. It would have been obvious to perform the Keim, Ohga, or Jung processes in a chamber so as to prevent the escape of contaminants.

The mandrels and plural burners are clearly shown. The controller is not shown: it would have been obvious to provide structure which would have the burner automatically turn off when the preforms achieve their final "predetermined" size. Because it would be easier/cheaper to do automatically than manually.
As to which gases flow through the structure – this is a method of use limitation. One can use almost any gas that one wishes. Applicant's statements regarding the interpretation of the claims at page 13, 4th paragraph of the paper filed 12/06/04. Therein, it is stated that "the streams" are "flowing past the glass preform." Therefore the streams are not converted to soot which is deposited on the mandrel. In other words, the Keim, Ohga and Jung burners need not actually be required to create soot

from the created streams – because Applicant clearly indicated that the claims do not require such.

Furthermore, it is noted that Applicant's (disclosed) auxiliary burners do not create a flame during the entire process. Similarly, the prior art burners need not have any particular gas flowing through it at any time. One can have one gas at one moment, and another gas during another moment.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

It is argued that Berkey's ports carry shield gas, not reactants. This not very relevant. The carrying of gas is a method step, not structure. Applicant has not given any indication as to why Berkey's ports could not handle reactant gases.

It is argued that the impinging and turbulence are structural limitations because such is achieved "in part" by a structural orientation. This is not convincing because it is merely "in part". The missing part would include method limitations, such as forcing a gas through the ports. Applicant's structure alone and by itself would not create the turbulence. Most importantly, Applicant has not indicated as to how this limitation would define over the Berkey burner.

AS to claim 2, it is argued that the claim has be amended to indicate that the controller operates the burners only after the glass preform has reached a

predetermined size. Examiner could find no specific indication as to why this amendment makes the claim of a scope that defines over the Berkey burner.

Claim 3: it is argued that Spainhour only depicts one burner. This is not accurate, or it is irrelevant. The other gas-emitting structure reads on the claimed auxiliary burners. The fact that Spainhour does not indicate they are burners is irrelevant. The only relevant question is whether they would read on the present broad claim language. Any nearly orifice can function as burner, one just has to pass a flammable gas through it.

Claim 4 – applicant disagrees as to it being obvious as to making a burner adjustable.

There is no indication as to why applicant disagrees. **From MPEP 2144.04**

D. Making Adjustable
In re Stevens , 212 F.2d 197, 101 USPQ 284 (CCPA 1954) (Claims were directed to a handle for a fishing rod wherein the handle has a longitudinally adjustable finger hook, and the hand grip of the handle connects with the body portion by means of a universal joint. The court held that adjustability, where needed, is not a patentable advance, and because there was an art-recognized need for adjustment in a fishing rod, the substitution of a universal joint for the single pivot of the prior art would have been obvious.).

Claims 5-6: It argued that ports 84' are not configured to act as flame ports. No indication as to why applicant takes this position. Any port can be a flame port. The creation of a flame is an intended use.

The arguments regarding claims 8-9 were considered. There is no indication as to why (or if) these claims define over the prior art. Since Applicant has not indicated that the claims further define over the prior art, it is deemed that Applicant is not of such a position. Furthermore, as indicated above, when these claims are interpreted in light of the specification, (most notably fig 7), it is clear to see that the inwardly directed

flames need not occur under all processes – rather that it is possible under some processes. One can direct the flames inwardly, if one uses other focusing jets external to the burner.

Claim 10-12: Applicant disagrees with the rejections but fails to point out why. Since Applicant failed to point out any error by the Office, it is deemed that there is no error.

Regarding claims 23-24: Applicant makes no explicit assertion that the claims further define over the prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2-2-05

John Hoffmann
Primary Examiner
Art Unit 1731

jmh